55910-0207717

# PRIME ITEM PRODUCT FABRICATION SPECIFICATION FOR THE MK 87 MOD 0 BOTTOM MARKER AND MK 88 MOD 0 VOLUME MARKER



28 March 2003

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# FABRICATION SPECIFICATION FOR THE MK 87 MOD 0 BOTTOM MARKER AND MK 88 MOD 0 VOLUME MARKER

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# PRIME ITEM PRODUCT FABRICATION SPECIFICATION FOR COMPONENTS OF MK 87 MOD 0 BOTTOM MARKER & MK 88 MOD 0 VOLUME MARKER

### **TABLE OF CONTENTS**

SI	GNATURE F	PAGE	i
RI	ECORD OF (	CHANGES	ii
DI	STRIBUTIO	N	iii
T/	ABLE OF CO	ONTENTS	iv
		RES	
LI		ES	
1			
2	APPLIC	ABLE DOCUMENTS	1
	2.1 Appe	endix A.4	1
3	REQUIR	REMENTS	1
	3.1 MK 8	37 MOD 0 Bottom Marker Definition	1
	3.1.1		
	3.1.1		
	3.1.1		3
	3.1.2		3
		38 MOD 0 Volume Marker Definition	
	3.2.1	Physical Description.	
		.1 Volume Interface	
		.2 MK 33 MOD 0 Accessory Set	
	3.2.2	Functional Description.	
		ernment Furnished Property List	
		racteristics	
	3.4.1	Magnetic Signature	
	3.4.2	Maximum Weight	
	3.4.3	Buoyancy	9
	3.4.4	Interchangeability	9
	3.4.5	MK 87 MOD 0 Bottom Marker Neutralization Charge	0
	2.4.0	Deployment.	9
	3.4.6	MK 88 MOD 0 Volume Marker Neutralization Charge	0
	3.4.7	Deployment	
		gn and Construction	
	3.5.1	Drawings	
	3.5.2	Workmanship.	
	3.5.3	Marking	
		Article Unit	
		edence	
4		Y ASSURANCE PROVISIONS	
_			
	4.1 Resp 4.1.1	oonsibility for Tests and Inspection Criteria for Approval	
		Classification of Defects	13

# PRIME ITEM PRODUCT FABRICATION SPECIFICATION FOR COMPONENTS OF MK 87 MOD 0 BOTTOM MARKER & MK 88 MOD 0 VOLUME MARKER

4.2 Quality Conformance Inspections and Tests	14
4.2.1 Material Certifications	
4.2.2 Mandatory Part Inspection	14
4.2.2.1 Latch Rod Inspection.	
4.2.2.2 Additional Inspections	14
4.2.3 First Article Inspections and Tests	14
4.2.3.1 First Article Inspections	
4.2.3.2 Maximum Weight Test	15
4.2.3.3 Buoyancy Test	
4.2.3.4 Interchangeability Test	15
4.2.3.5 Firing Devices Fit Test	15
4.2.3.6 Fairing Assembly Leak Test	15
4.2.3.7 Function (Neutralization Charge Deployment)	15
4.2.3.8 Operational Test	
4.2.3.9 Retest of First Article Marker	16
4.2.4 Production Inspections and Tests	16
4.2.4.1 Production Inspections	16
4.2.5 Fairing Assembly Leak Test	
4.2.6 Production Function Tests	
4.2.6.1 MK 33 MOD 0 Accessory Set Test	
4.2.6.2 Bottom/Volume Interface Installation Test	
4.2.6.3 MK 87 MOD 0 Bottom Marker Function Test	
4.2.6.4 MK 88 MOD 0 Volume Marker Cable Function Test	
4.2.6.5 MK 88 MOD 0 Volume Marker Pedestal Function Test	22
4.2.6.6 MK 88 MOD 0 Volume Marker Premature Release	
Function Test.	
4.2.7 Production Sampling Tests	
4.2.7.1 Weight Test	
4.2.7.2 Buoyancy Test	
4.2.7.3 Interchangeability Test	
4.2.7.4 Firing Devices Fit Test.	
4.2.8 Reuse of Components from Rejected Assemblies	
4.2.9 Drying	
5 PREPARATION FOR DELIVERY	25
5.1 Packaging and Packing	25
5.1.1 MK 33 MOD 0 Accessory Set, Bottom Interface, and Volume	
Interface	25
5.2 Delivery	26
APPENDIX A.1 NUMERICAL LIST OF DRAWINGS	27
APPENDIX A.2 ALPHABETICAL LIST OF DRAWINGS	
APPENDIX A.3 ORGANIZATION OF COMPONENTS	31
APPENDIX A.4 STANDARDS AND SPECIFICATIONS REFERENCED IN TI	ΗE
DRAWING PACKAGE	
APPENDIX A.5 ASSOCIATED EQUIPMENT LIST	
APPENDIX A.6 BLANK FORMS	36

### **LIST OF FIGURES**

Figure 1.	MK 87 MOD 0 Bottom Marker (Exploded View)	2
Figure 2.	Bottom Interface	
Figure 3.	MK 33 MOD 0 Accessory Set -1 and -2	
Figure 4.	MK 87 MOD 0 Bottom Marker (Assembled View)	5
Figure 5.	MK 88 MOD 0 Volume Marker (Exploded View)	
Figure 6.	Volume Interface	7
Figure 7.	MK 88 MOD 0 Volume Marker (Assembled View)	7
Figure 8.	MK 33 MOD 0 Accessory Set Test	
Figure 9.	Position for Bottom/Volume Interface Installation Test	20
Figure 10.	Position for MK 87 MOD 0 Bottom Marker Function Test	21
Figure 11.	Position for MK 88 MOD 0 Volume Marker Cable Function Test	22
Figure 12.	Position for MK 88 MOD 0 Volume Marker Pedestal Function Test	23
Figure 13.	Position for MK 88 MOD 0 Volume Marker Premature Release	
	Function Test	24
	LIST OF TABLES	
Table 1. M	1arking	11
Table 2. S	ummary of Inspections and Tests	12
	classification of Defects	

### 1 SCOPE

This specification establishes the requirements for the manufacture and acceptance of a MK 87 MOD 0 Bottom Marker, drawing number 55910-0206115, and a MK 88 MOD 0 Volume Marker, drawing number 55910-0206116, both described in Appendix A of this specification.

### 2 APPLICABLE DOCUMENTS

The following documents of the issue in effect on the date of invitation for bids or request for proposal form a part of the specification to the extent specified herein.

### 2.1 APPENDIX A.4

Appendix A.4 is a list of Standards and Specifications cited in the drawing package and is an integral part of this specification.

### 3 REQUIREMENTS

### 3.1 MK 87 MOD 0 BOTTOM MARKER DEFINITION

**3.1.1 Physical Description.** The MK 87 MOD 0 Bottom Marker consists of two inert sections: the bottom interface and the MK 33 MOD 0 Accessory Set, as depicted in Figure 1. When combined with M112 blocks of C-4 explosive and a firing device, the total assembly is called the MK 87 MOD 0 Bottom Marker. The M112 blocks of C-4 explosive and firing device are procured through standard Navy supply channels and are not discussed in detail in this specification. The bottom interface (Figure 2) connects to the MK 33 MOD 0 Accessory Set and comprises a nosecup, nosecup lever, lever retaining pin, interface lock, and bottom interface adapter. The MK 33 MOD 0 Accessory Set (Figure 3) has two configurations. Each configuration comprises a fairing assembly, a payload section, and a reflector assembly. The only difference in the two configurations is in the payload section's explosive tray. Each of these assemblies is listed in paragraphs 3.1.1.1 and 3.1.1.2. The assembled view of the MK 87 MOD 0 Bottom Marker is depicted in Figure 4.

### 3.1.1.1 Bottom Interface. (Figure 2)

Nosecup Nosecup Lever Lever Retaining Pin Interface Lock Bottom Interface Adapter

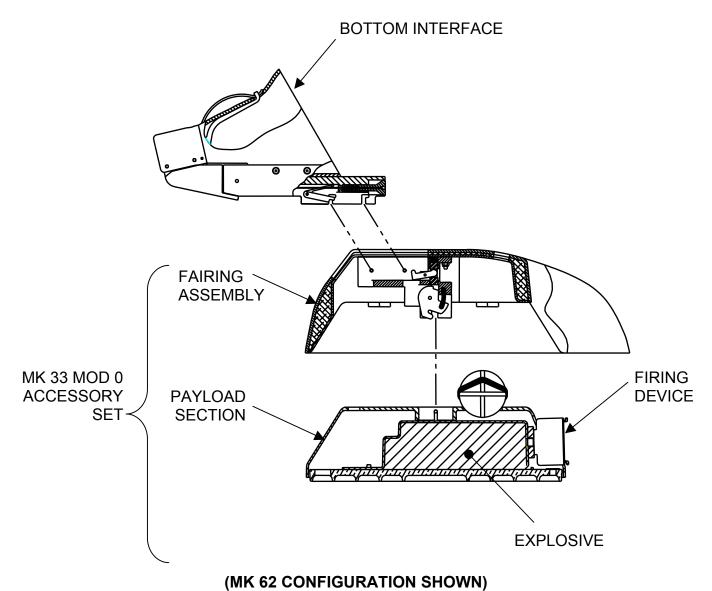


Figure 1. MK 87 MOD 0 Bottom Marker (Exploded View)

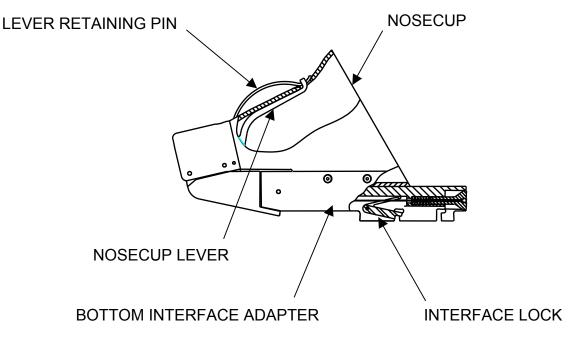


Figure 2. Bottom Interface

### 3.1.1.2 MK 33 MOD 0 Accessory Set. (Figure 3)

Fairing Assembly

Latch Assembly

Fairing

Spacer Pad

**Retention Rod Spring** 

**Payload Section** 

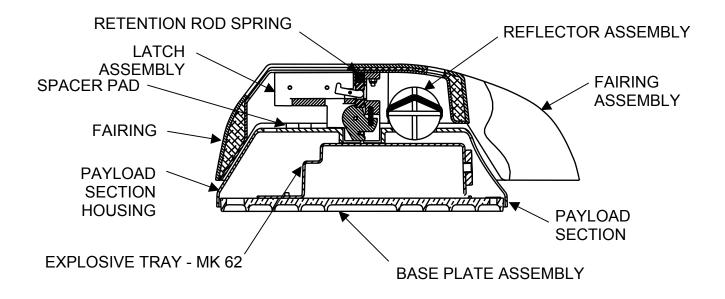
Payload Section Housing

Explosive Tray (2 configurations)

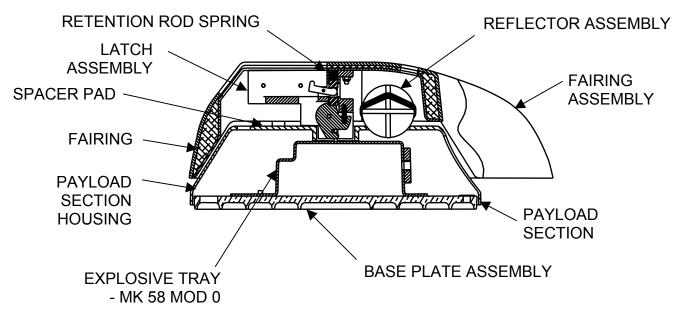
Base Plate Assembly

Reflector Assembly

**3.1.2 Functional Description.** The MK 87 MOD 0 Bottom Marker uses a cable-operated latch to hold and to separate the fairing assembly and the payload section. When the nosecup lever (located in the nosecup) is released, a spring provides tension in the cable that triggers the latch. This causes the spring-loaded latch to release the payload section, which then drops away from the fairing assembly to complete deployment near the target.

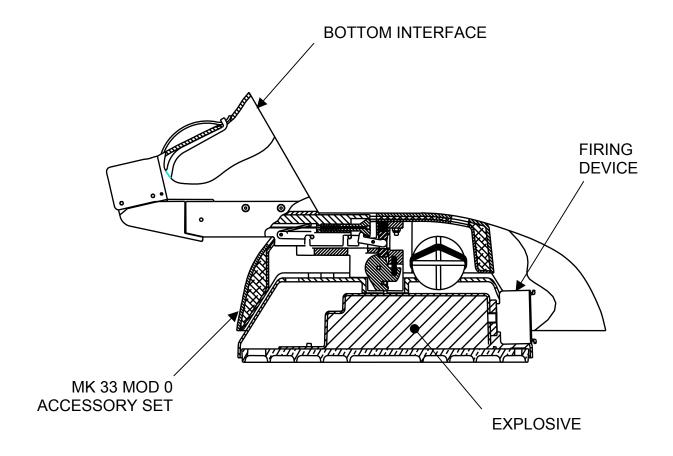


### -1 CONFIGURATION



### -2 CONFIGURATION

Figure 3. MK 33 MOD 0 Accessory Set -1 and -2



### (MK 62 CONFIGURATION SHOWN)

Figure 4. MK 87 MOD 0 Bottom Marker (Assembled View)

### 3.2 MK 88 MOD 0 VOLUME MARKER DEFINITION

**3.2.1 Physical Description.** The MK 88 MOD 0 Volume Marker consists of two inert sections: the volume interface and the MK 33 MOD 0 Accessory Set, as depicted in Figure 5. When combined with M112 blocks of C-4 explosive and a firing device, the total assembly is called the MK 88 MOD 0 Volume Marker. The M112 blocks of C-4 explosive and firing device are procured through standard Navy supply channels and are not discussed in detail in this specification. The volume interface (Figure 6) connects to the MK 33 MOD 0 Accessory Set and comprises a frame, bite plate assembly, lever retaining pin, adapter assembly, charge release lever, and interface lock. The MK 33 MOD 0 Accessory Set (Figure 3) has two configurations. Each configuration comprises a fairing assembly, a payload section, and a reflector assembly. The only difference in the two configurations is in the payload section's explosive tray. Each of these assemblies consists of the components listed in paragraphs 3.2.1.1 and 3.2.1.2. The assembled view of the MK 88 MOD 0 Volume Marker is depicted in Figure 7.

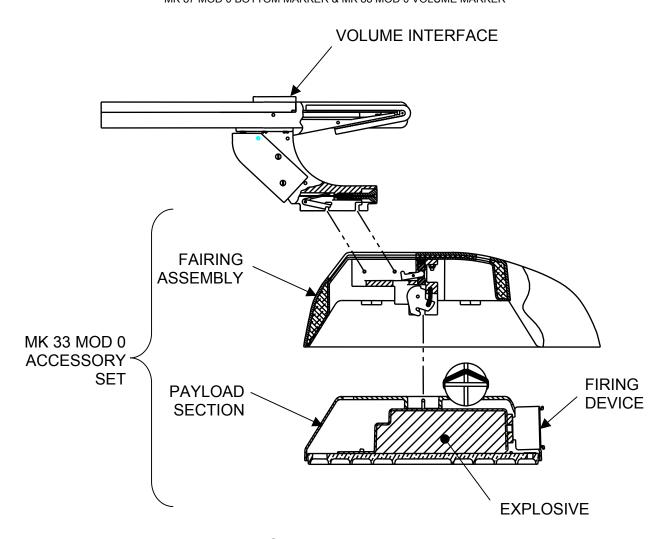


Figure 5. MK 88 MOD 0 Volume Marker (Exploded View)

### 3.2.1.1 Volume Interface. (Figure 6)

Frame
Bite Plate Assembly
Lever Retaining Pin
Adapter Assembly
Charge Release Lever
Interface Lock

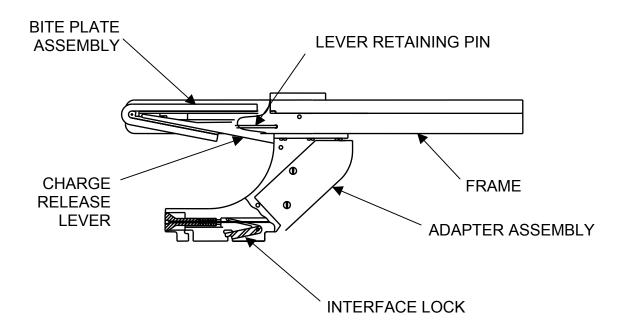
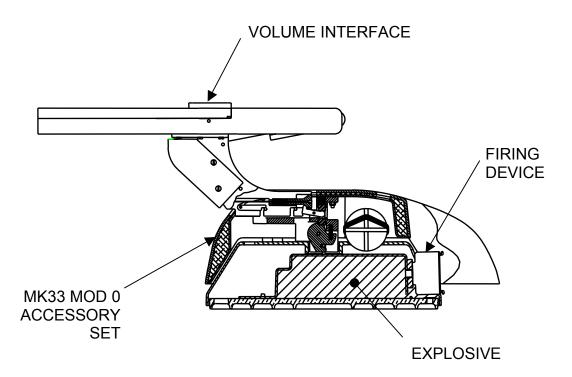


Figure 6. Volume Interface



(MK 62 CONFIGURATION SHOWN)

Figure 7. MK 88 MOD 0 Volume Marker (Assembled View)

### 3.2.1.2 MK 33 MOD 0 Accessory Set. (Figure 3)

Fairing Assembly
Latch Assembly
Fairing
Spacer Pad
Retention Rod Spring
Payload Section
Payload Section Housing
Explosive Tray (2 configurations)
Base Plate Assembly
Reflector Assembly

**3.2.2 Functional Description.** The MK 88 MOD 0 Volume Marker uses a volume interface to attach to a tether or pedestal. When the volume interface is pressed against a tether or pedestal, the trigger plate is forced into the volume interface frame, simultaneously closing the gates loosely around the tether or pedestal and releasing the bite plate.

If the dolphin lets go of the bite plate before the marker is attached to the tether or pedestal, the MK 88 MOD 0 Volume Marker uses a cable-operated latch to separate the fairing assembly and payload section. When released, the bite plate opens allowing the spring actuated charge release lever to drop, which provides tension in the cable that triggers the latch. The latch is spring-loaded and separates the fairing assembly and the payload section, allowing the payload section to fall to the sea floor.

### 3.3 GOVERNMENT FURNISHED PROPERTY LIST

- 1) Nosecup mold
- 2) Bottom interface (functional sample)
- 3) Volume Interface (functional sample)
- 4) Sample fairing and baseplate
- 5) Bulk non-magnetic fasteners (stainless steel screws and stainless steel cable)
- 6) Explosive tray billets (one explosive tray filled with 12.5 lb of inert material and one explosive tray filled with 13.75 lb of inert material) inert material is used to replicate M112 blocks for marker testing.
- 7) Inert replica firing devices (MK 62 Firing Device and MK 58 MOD 0 Firing Device)
- 8) Blocks for testing cable adjustment (one block for the bottom interface and one block for the volume interface)

### 3.4 CHARACTERISTICS

- **3.4.1 Magnetic Signature.** In order to minimize the magnetic signature of the MK 87 MOD 0 Bottom Marker and the MK 88 MOD 0 Volume Marker, effort shall be made by the contractor to avoid inadvertently introducing ferrous material into the fabrication process. Care should be taken to clean equipment and workspaces prior to MK 87 MOD 0 Bottom Marker and MK 88 MOD 0 Volume Marker fabrication to prevent contamination by ferrous materials. The government will test all first article and production units for magnetic signature.
- **3.4.2 Maximum Weight.** The combined weight of the MK 87 MOD 0 Bottom Marker shall not exceed 26 lb in air. The MK 87 MOD 0 Bottom Marker configuration to be weighed includes a bottom interface, a fairing assembly, a reflector assembly, and a payload section assembled with an empty explosive tray (no explosive or firing device). The combined weight of the MK 88 MOD 0 Volume Marker shall not exceed 31 lb in air. The MK 88 MOD 0 Volume Marker configuration to be weighed includes a volume interface, a fairing assembly, a reflector assembly, and a payload section assembled with an empty explosive tray (no explosive or firing device).
- **3.4.3 Buoyancy.** The MK 87 MOD 0 Bottom Marker and the MK 88 MOD 0 Volume Marker, when completely assembled with the inert loaded explosive tray (GFE), shall have a positive buoyancy of 4 lb  $\pm$  1lb in saltwater.
- **3.4.4 Interchangeability.** All fairing assemblies, payload sections, and interfaces shall be interchangeable. Any payload section housing and base plate assembly shall accommodate either explosive tray. Any selected combination of fairing assembly, payload section, and interface shall mate to form a functional MK 87 MOD 0 Bottom Marker or MK 88 MOD 0 Volume Marker.
- **3.4.5 MK 87 MOD 0 Bottom Marker Neutralization Charge Deployment.** An overview of how the MK 87 MOD 0 Bottom Marker operates is given in paragraph 3.1.2. The subsystems that must function to deploy the payload section are the bottom interface and the latch assembly. The deployment process begins when the nosecup lever is released. Deployment is complete when the latch assembly is actuated by the cable and the payload section separates and drops away from the fairing assembly. The bottom interface stays attached to the fairing assembly.
- **3.4.6 MK 88 MOD 0 Volume Marker Neutralization Charge Deployment.** An overview of how the MK 88 MOD 0 Volume Marker operates is given in paragraph 3.2.2. The subsystems that must function to deploy the payload section and fairing assembly are the volume interface and the latch assembly. The deployment process begins when the volume interface is pressed against the tether or pedestal forcing the trigger plate into the volume interface frame, releasing the bite plate. Deployment is complete when the bite plate is released and the interface, fairing assembly, and payload section remain attached to the tether or pedestal.
- **3.4.7 Marker Safety Function.** The latch assembly (55910-0206134) in the MK 87 MOD 0 Bottom Marker and the MK 88 MOD 0 Volume Marker must immediately release the payload section whenever the delivery system prematurely disengages. This critical safety function of the latch assembly ensures the payload section will always immediately descend to the sea bottom whenever the latch is actuated.

### 3.5 DESIGN AND CONSTRUCTION

- **3.5.1 Drawings.** The MK 87 MOD 0 Bottom Marker and the MK 88 MOD 0 Volume Marker shall be fabricated, assembled, and tested in accordance with this specification and the specifications, drawings, and other documents listed in Appendix A. During the fabrication of the MK 87 MOD 0 Bottom Marker and the MK 88 MOD 0 Volume Marker, as specified in paragraph 3.4, it is essential that any necessary changes to the drawings or specifications be approved by the Marine Mammal System (MMS) In-Service Engineering Agent (ISEA) prior to production. The contractor shall advise the MMS ISEA of any necessary changes and obtain resolution from the contract technical coordinator. If it is agreed that a change is necessary, the Government contract technical coordinator, in coordination with the MMS ISEA and contracting officer, shall initiate a change order and contract modification to produce the markers according to the amended drawings or specifications. No changes shall be implemented until an official modification is made by the contracting officer.
- **3.5.2 Workmanship.** The MK 87 MOD 0 Bottom Marker and the MK 88 MOD 0 Volume Marker shall be constructed and finished in a manner to assure that the units are free of burrs, sharp edges, and any foreign matter, <u>especially ferrous material</u>. <u>Care should be taken to ensure proper fabrication techniques are utilized that mitigate the chance of any ferrous material being inadvertently introduced into the marker.</u> The workmanship exhibited in the approved first article markers shall become the minimum workmanship standard for the production units.

**3.5.3 Marking.** Production MK 33 MOD 0 Accessory Sets (-1 and -2) and Bottom and Volume Interfaces shall be serialized according to Table 1. The serial number for the MK 33 MOD 0 Accessory Set shall be applied to the fairing assembly in a visible location. As an example, the first production MK 33 MOD 0 Accessory Set -1 from the first procurement would be marked AS1 1-001. Payload sections shall be marked on the top of the payload section housing with a similar number (e.g., PS 1-001).

Table 1.	Marking
----------	---------

Unit	Code	Procurement	Item Number
		Sequence	001-999 (1-up
		Number*	series)
		1-99 (1-up series)	
MK 33 MOD 0 Accessory Set -1	AS1	1-99 (1-up series)	001-999 (1-up series)
MK 33 MOD 0 Accessory Set -2	AS2	1-99 (1-up series)	001-999 (1-up series)
Bottom Interface	BI	1-99 (1-up series)	001-999 (1-up series)
Volume Interface	VI	1-99 (1-up series)	001-999 (1-up series)
Payload Section	PS	1-99 (1-up series)	001-999 (1-up series)

<sup>\*</sup> to be assigned by SSC Code 235

### 3.6 FIRST ARTICLE UNIT

The contractor shall furnish a first article (pre-production) MK 87 MOD 0 Bottom Marker and MK 88 MOD 0 Volume Marker for first article inspection, testing, and approval. First article units shall be fabricated using the same tooling, methods, and procedures that will be used in production. Acceptance of the first article MK 87 Bottom Markers and MK 88 MOD 0 Volume Markers qualifies the fabrication procedures and the facilities by which manufacture and test of the units is accomplished. After acceptance of the first article markers, no changes shall be made in the fabrication procedures or techniques without Government approval. Quantities of the first article markers will be specified in the contract and statement of work (SOW).

### 3.7 PRECEDENCE

Conflicting requirements arising between this specification and any specifications, drawings, publications, or inspection requirements listed herein shall be referred in writing to the contract technical coordinator for interpretation, clarification, and resolution.

### 4 QUALITY ASSURANCE PROVISIONS

### 4.1 RESPONSIBILITY FOR TESTS AND INSPECTION

Unless otherwise specified in the contract or purchase request, the contractor is responsible for the performance of all tests and inspections required herein. Except as otherwise specified in the contract or purchase request, the contractor may use his own or any other facilities suitable for the performance of all tests and inspections required herein, unless disapproved by the Government. The Government reserves the right to witness or perform any of the tests or inspections required by this specification or the drawings. All inspections and tests are described in the following paragraphs and summarized in Table 2.

# PRIME ITEM PRODUCT FABRICATION SPECIFICATION FOR COMPONENTS OF MK 87 MOD 0 BOTTOM MARKER & MK 88 MOD 0 VOLUME MARKER

### Table 2. Summary of Inspections and Tests

	INSPECTION/TEST	CONT.	GOV.	PARA TEST	PARA DESIGN REQ
	First Ar	ticle			
Inspections	Material – Material certifications from the point of origin of all metals used in machining parts for the markers	V	Certifications w/delivery of first article	4.2.1	3.5.1
	<b>Latch Rod Inspection</b> – required on every payload section housing (form from Appendix A.6)	V	Report w/ delivery of each first article MK 33 Accessory Set	4.2.2.1	3.5.1
Tests	Weight	V	Witness	4.2.3.2	3.4.2
	Buoyancy	V	Witness	4.2.3.3	3.4.3
	Interchangeability	V	Witness	4.2.3.4	3.4.4
	Firing Devices Fit Test	V	Witness	4.2.3.5	3.5.1
	Fairing Assembly Leak Test (form from Appendix A.6)	V	Witness	4.2.3.6	3.5.1
	Function Tests			4.2.3.7	3.4.5,
	1. MK 33 MOD 0 Accessory Set Test		Witness	4.2.6.1	3.4.6,
	2. Bottom/Volume Interface Installation Test	$\sqrt{}$	Witness	4.2.6.2	3.4.7
	3. MK 87 Mod 0 Bottom Marker Function Test (includes nosecup lever measurement)*	V	Witness	4.2.6.3	
	4. MK 88 Mod 0 Volume Marker Cable**	V	Witness	4.2.6.4	
	5. MK 88 Mod 0 Volume Marker Pedestal **	V	Witness	4.2.6.5	
	6. MK 88 Mod 0 Volume Marker Premature Release Function (includes charge release lever measurement)**	V	Witness	4.2.6.6	
	Operational Tests	May witness	V	4.2.3.8	3.4. and 3.5

Table 2. Summary of Inspections and Tests (Cont.)

	INSPECTION/TEST	CONT.	GOV.	PARA TEST	PARA DESIGN REQ
	Produc	tion		I	
Inspections		V	NA	4.2.4.1	3.5.1
	first articles are applicable to production units				
	Latch Rod Inspection – required on	$\sqrt{}$	Report w/ delivery of	4.2.4.1	3.5.1
	every production payload section		every production MK		
	housing (form from Appendix A.6)	,	33 Accessory Set		
	Additional Inspections – Government		AS REQ	4.2.4.1	3.4 and
	can request report on any part or				3.5
	material throughout production run.				
Tests	Fairing Assembly Leak Test – EVERY	$\sqrt{}$	Witness tests for first	4.2.5	3.5.1
	unit (form from Appendix A.6)		production lot		
	Function Tests on EVERY unit			4.2.6	3.4.5,
	1. MK 33 MOD 0 Accessory Set Test	V		4.2.6.1	3.4.6,
	2. Bottom/Volume Interface Installation	V		4.2.6.2	3.4.7
	Test				
	3. MK 87 Mod 0 Bottom Marker	V		4.2.6.3	
	Function Test (includes nosecup lever				
	measurement)*				
	4. MK 88 Mod 0 Volume Marker Cable**	V		4.2.6.4	
	5. MK 88 Mod 0 Volume Marker	V		4.2.6.5	
	Pedestal **				
	6. MK 88 Mod 0 Volume Marker	V		4.2.6.6	
	Premature Release Function (includes				
	charge release lever measurement)**				
	7. Magnetic signature	May	√	4.2.4	3.4.1
		witness			
	Sampling Tests on SELECTED 5 units	<b>V</b>	Select units and	4.2.7	•
	from each production lot		witness tests for first		
	Weight	<b>V</b>	production lot	4.2.7.1	3.4.2
	Buoyancy	V		4.2.7.2	3.4.3
	Interchangeability	V		4.2.7.3	3.4.4
	Firing Device Fit Test	V		4.2.7.4	3.5.1
MK 87 MO	D 0 Bottom Marker Only		L		
	D 0 Volume Marker Only				

**4.1.1 Criteria for Approval.** Approval shall be based on satisfactory completion of all tests and inspections. Production acceptance will be done by production lots. Each production lot shall include one (1) MK 33 MOD 0 Accessory Set Shipping and Storage Container of eight (8) MK 33 MOD 0 Accessory Sets and one (1) Bottom and Volume Interface Shipping and Storage Container of 48 bottom interfaces or one (1) Bottom and Volume Interface Shipping and Storage Container of 24 volume interfaces. A Government representative shall witness all first article tests and all production tests for the first lot. Cause for rejection of a single unit will constitute rejection of the lot. Before resubmission, the Contractor will test and inspect the entire lot to ensure the same deficiency does not exist in the other units.

**4.1.2 Classification of Defects.** Defects are classified as critical, major, or minor as shown in Table 3. A critical or major defect is a cause for rejection.

Table 3. Classification of Defects

Defect	Critical	Major	Minor
Any component not in conformance with Government drawings or this specification	X		
Material Certifications from point of origin of metals used in machining parts not in accordance with drawing requirements	Х		
Dimensions not in accordance with Government drawings as determined by calibrated measuring instruments	Х		
Misalignment between parts	Χ		
Failure of proper packaging for shipment		Х	
Marking not as required		Х	
Color not within drawing specification			Х
Visual examination for blemishes			Х

### 4.2 QUALITY CONFORMANCE INSPECTIONS AND TESTS

- **4.2.1 Material Certifications.** For first articles, the contractor shall provide material certifications from the point of origin of all metals used in machining parts for the MK 87 MOD 0 Bottom Marker and the MK 88 MOD 0 Volume Marker. This certification shall be applicable to all metals used in fabrication of components after the first articles. These material certifications shall be submitted with the delivery of, but not packed with, all first article MK 87 MOD 0 Bottom Markers and the MK 88 MOD 0 Volume Markers.
- **4.2.2 Mandatory Part Inspection.** Because the correct placement of the latch rod in the payload section housing is of critical importance to the function of the marker, a Latch Rod Inspection is required.
- **4.2.2.1 Latch Rod Inspection.** A Latch Rod Inspection is required on every first article and production Payload Section Housing. A Latch Rod Inspection Report Form, as shown in Appendix A.6, should be used as a guide. Note that critical measurements ensuring the correct location of the latch rod are required. This inspection is required before function testing the markers and shall be submitted with the delivery of, but not packed with, every first article and production MK 33 MOD 0 Accessory Set.
- **4.2.2.2 Additional Inspections.** If requested, the contractor shall furnish inspection reports for any part or material throughout the production run. The request must be in good faith and based on quality control problems concerning those parts or materials.
- **4.2.3 First Article Inspections and Tests.** The quantity of first article units as specified in the contract and SOW shall be manufactured in accordance with (IAW) paragraphs 3.4 and 3.5. The markers shall be inspected IAW paragraph 4.2.3.1 and

tested IAW paragraphs 4.2.3.2 through 4.2.3.7 to verify conformance to the requirements of section 3. The contractor shall be responsible for accomplishing all prescribed inspections and tests. A Government representative must witness first article testing. Failure to pass these inspections and tests shall cause rejection of the units for paragraph 4.2.3.8 testing. Additional production of the item by the contractor prior to approval of the Government shall be at the contractor's risk. The contractor shall submit a test plan and test reports IAW the SOW.

- **4.2.3.1 First Article Inspections.** As stated in paragraphs 4.2.1 and 4.2.2.1, the contractor shall provide materials' certifications from the point of origin of all metals used in machining parts for first article MK 87 MOD 0 Bottom Markers and first article the MK 88 MOD 0 Volume Markers. The Contractor shall also perform and document the Latch Rod Inspection on each first article marker.
- **4.2.3.2 Maximum Weight Test.** The requirements of paragraph 3.4.2 shall be verified by demonstration.
- **4.2.3.3 Buoyancy Test.** The requirements of paragraph 3.4.3 shall be verified by demonstration with a GFE explosive tray billet installed.
- **4.2.3.4 Interchangeability Test.** Performance shall be demonstrated with all combinations of fairing assemblies, payload sections, explosive trays, and bottom and volume interfaces as specified in paragraph 3.4.4.
- **4.2.3.5 Firing Devices Fit Test.** Performance shall be demonstrated using the GFE MK 62 replica inert firing device and the explosive tray-MK 62 (55910-0206144). The payload section shall be assembled using the explosive tray-MK-62 (55910-0206144). The GFE MK 62 replica inert firing device shall be inserted to ensure conformance to the drawings as specified in paragraph 3.5.1. Performance shall also be demonstrated using the GFE MK 58 MOD 0 replica inert firing device and the explosive tray-MK 58 MOD 0 (55910-0207709). The payload section shall be assembled using the explosive tray-MK 58 MOD 0 (55910-0207709). The GFE MK 58 MOD 0 replica inert firing device shall be inserted to ensure conformance to the drawings as specified in paragraph 3.5.1.
- **4.2.3.6 Fairing Assembly Leak Test.** Performance shall be demonstrated IAW drawing 55910-0206132. A Fairing Assembly Leak Test Report, as shown in Appendix A.6, should be used as a guide. Note that critical measurements ensuring the integrity of the fairing assembly are required (see Appendix A.6). This inspection is required before function testing the markers and shall be submitted with a first article test report.
- **4.2.3.7 Function (Neutralization Charge Deployment).** Demonstrate reliable performance (described in paragraphs 3.4.5, 3.4.6, and 3.4.7) by successful completion of paragraph 4.2.6 function tests.
- **4.2.3.8 Operational Test.** Upon successful completion of the preceding paragraph 4.2.3.1 inspections and paragraphs 4.2.3.2 through 4.2.3.7 testing, the first article units shall be delivered for the Government conducted operational tests. The tests shall be IAW Government developed procedures and shall demonstrate conformance to the requirements of section 3. One portion of the operational test will be the magnetic signature testing mentioned in paragraph 3.4.1. The government will be responsible for

liaison with the magnetic test facility. All items to be tested are categorized as "Non-Contact Component" in accordance with MIL-DTL-19595D "MAGNETIC EFFECT LIMITS FOR NONMAGNETIC EQUIPMENT USED IN THE PROXIMITY OF MAGNETIC INFLUENCE ORDNANCE."

- **4.2.3.9 Retest of First Article Marker.** A first article marker that has been rejected for any reason during first article inspections or tests may be reworked or have parts replaced to correct defects. Before resubmitting the unit, full details concerning the rejection and corrective action taken by the contractor must be submitted in writing to the technical coordinator. Tests shall not be resumed until this report is received and approved by the technical coordinator.
- **4.2.4 Production Inspections and Tests.** The quantity of production units and associated equipment (Appendix A.5) as specified in the contract and SOW shall be manufactured IAW paragraphs 3.4 and 3.5. The production markers shall be inspected IAW paragraph 4.2.4.1, and tested IAW paragraphs 4.2.5 through 4.2.7 to verify conformance to the requirements of section 3. The contractor shall be responsible for accomplishing all prescribed inspections and tests. The procuring activity may conduct additional operational environment or laboratory environmental tests. All production units will be tested for magnetic signature by the government. The government will be responsible for liaison with the magnetic test facility. All items to be tested are categorized as "Non-Contact Component" in accordance with MIL-DTL-19595D "MAGNETIC EFFECT LIMITS FOR NONMAGNETIC EQUIPMENT USED IN THE PROXIMITY OF MAGNETIC INFLUENCE ORDNANCE." The tests required on all production units are described in the paragraphs below. A Government representative shall witness all production function and sampling tests for the first lot. All inspections and testing at the contractor's plant may be monitored by a Government representative. Contractors not having laboratory testing facilities capable of performing the required tests shall engage the services of a commercial testing laboratory acceptable to the procuring activity. The contractor shall submit a test plan and test reports IAW the SOW.
- **4.2.4.1 Production Inspections.** As stated in paragraph 4.2.1, the material certifications provided on the first article MK 87 MOD 0 Bottom Markers and first article MK 88 MOD 0 Volume Markers shall be applicable to all metals used in fabrication of components after the first articles (production). Also, as stated in paragraph 4.2.2.1, the contractor shall perform and document the Latch Rod Inspection on every production MK 33 Accessory Set. The Latch Rod Inspection Report (Appendix A.6) shall be submitted with the delivery of, but not packed with, every production MK 33 Accessory Set. Lastly, as stated in paragraph 4.2.2.2, additional inspections may be requested by the Government.
- **4.2.5 Fairing Assembly Leak Test.** Performance shall be demonstrated according to drawing 55910-0206132. A Fairing Assembly Leak Test Report, as shown in Appendix A.6, should be used as a guide. Note that critical measurements ensuring the integrity of the fairing assembly are required (see Appendix A.6). This inspection is required before function testing the markers and shall be submitted with a production test report.
- **4.2.6 Production Function Tests.** The tests specified in the following paragraphs 4.2.6.1 and 4.2.6.2 apply to all production units, the test in paragraph 4.2.6.3 applies to

the MK 87 MOD 0 Bottom Marker only, and the tests specified in paragraphs 4.2.6.4, 4.2.6.5, and 4.2.6.6 apply to the MK 88 MOD 0 Volume Marker only. The tests must be performed in the order presented.

# **4.2.6.1 MK 33 MOD 0 Accessory Set Test.** Repeat the following procedure 3 times. A single failure is basis for rejection.

- a. Assemble a payload section using the GFE provided explosive tray billet. Place on a flat tabletop or workbench.
- b. Press the fairing assembly down over the payload section (Figure 8) until the latch assembly catches.
- c. Evaluation Criteria: Sections should snap together easily with no hesitation. When the combined assembly is lifted by the fairing assembly, the payload section remains attached.
- d. Raise the fairing assembly while still attached to the payload section an inch or two above the flat tabletop and manually release the latch assembly by pressing down on the rod lever.
- e. Evaluation Criteria: Sections should separate immediately and the payload section should drop away from the fairing assembly. Any hesitation is reason for rejection.

## PRIME ITEM PRODUCT FABRICATION SPECIFICATION FOR COMPONENTS OF

MK 87 MOD 0 BOTTOM MARKER & MK 88 MOD 0 VOLUME MARKER

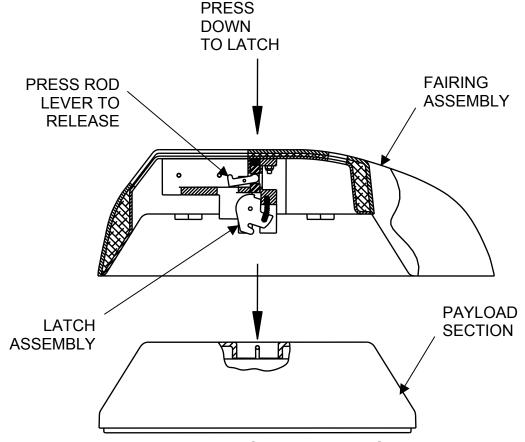
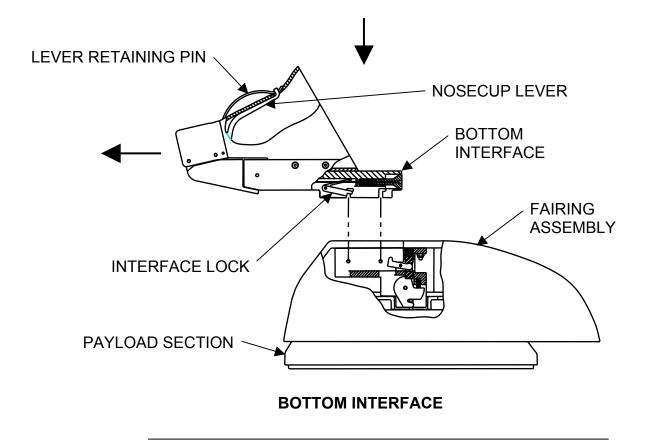


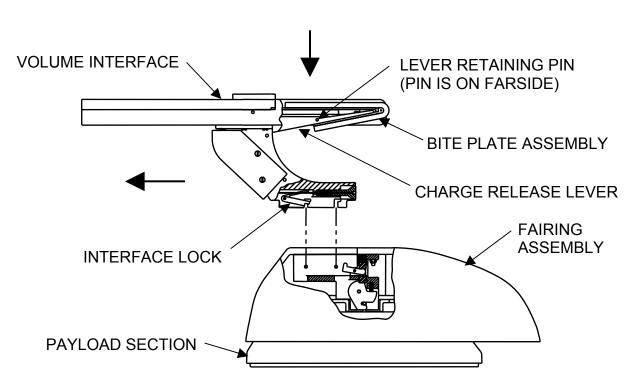
Figure 8. MK 33 MOD 0 Accessory Set Test

# **4.2.6.2 Bottom/Volume Interface Installation Test.** Repeat the following procedure 3 times for each interface. A single failure is basis for rejection.

- a. Place a previously accepted payload section (with explosive tray billet installed) on a flat tabletop or workbench.
- b. Press a previously accepted fairing assembly down over the payload section (refer to Figure 8) until the latch assembly catches.
- c. Lift the combined assembly by the faring assembly and ensure that the payload section remains attached.
- d. For Bottom Interface: With nosecup lever secured in the "Up" position, using the lever retaining pin, insert the bottom interface into the fairing assembly with attached payload section (Figure 9) until the interface lock catches. For Volume Interface: With charge release lever and bite plate assembly secured in the "Up" position, using the lever retaining pin, insert the volume interface into the fairing assembly with attached payload section (Figure 9) until the interface lock catches.
- e. Lift the combined assembly by the interface.

- f. Evaluation Criteria: When the combined assembly is lifted by the bottom or volume interface, the fairing assembly, payload section, and interface shall remain attached.
- **4.2.6.3 MK 87 MOD 0 Bottom Marker Function Test.** Repeat the following procedure 3 times. A single failure is basis for rejection.
  - a. Assemble the MK 87 MOD 0 Bottom Marker (with explosive tray billet installed) with previously tested parts.
  - b. Place the MK 87 MOD 0 Bottom Marker in a tank of fresh water. The tank must be long enough to allow the MK 87 MOD 0 Bottom Marker to float horizontally with 1 foot of space on either end. The water must be a minimum of 3 feet deep.
  - c. With the unit fully submerged, motionless and the base plate parallel to the bottom of the tank, depress the nosecup lever with one hand and remove the lever retaining pin with the other hand (Figure 10).
  - d. Release the nosecup lever slowly, taking 1-2 seconds.
  - e. Observe the travel of the nosecup lever. The latch must actuate when the nosecup lever has traveled 1.25" to 1.50" (measured using the GFE block according to drawing 55910-0206115), allowing the payload section to separate from the fairing assembly.
  - f. Evaluation criteria: If the motion of nosecup lever stops, even briefly, before the latch assembly is actuated, the bottom interface is to be rejected. Ensure separation.





### **VOLUME INTERFACE**

Figure 9. Position for Bottom/Volume Interface Installation Test

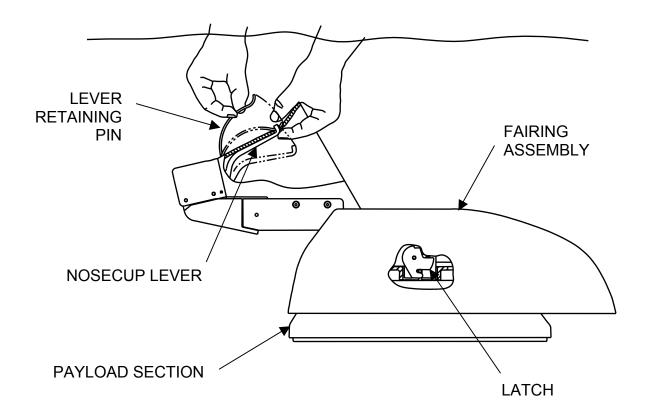


Figure 10. Position for MK 87 MOD 0 Bottom Marker Function Test

**4.2.6.4 MK 88 MOD 0 Volume Marker Cable Function Test.** Repeat the following procedure 3 times. A single failure is basis for rejection.

- Assemble the MK 88 MOD 0 Volume Marker using the GFE provided explosive tray billet.
- b. Place the MK 88 MOD 0 Volume Marker in a tank of fresh water with a taut 3/16" diameter vertical cable at one end. The tank must be long enough to allow the MK 88 MOD 0 Volume Marker to float horizontally and with 1 foot of space on either end. The water must be a minimum of 3 feet deep.
- c. With the unit fully submerged motionless and the volume interface pointing toward the cable end of the tank, squeeze the bite plate with one hand and remove the bite plate release lever pin with the other hand (Figure 11).
- d. Press the volume interface trigger plate against the cable until the bite plate assembly releases.
- e. Evaluation criteria: If the bite plate assembly does not release or the payload section drops, the volume interface is to be rejected.

# PRIME ITEM PRODUCT FABRICATION SPECIFICATION FOR COMPONENTS OF MK 87 MOD 0 BOTTOM MARKER & MK 88 MOD 0 VOLUME MARKER

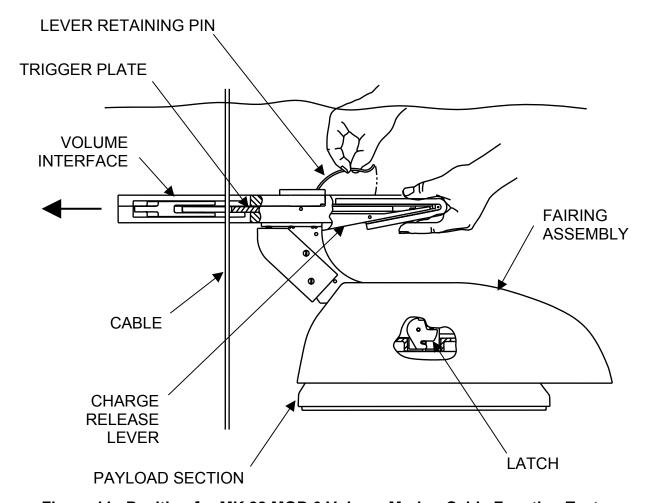


Figure 11. Position for MK 88 MOD 0 Volume Marker Cable Function Test

**4.2.6.5 MK 88 MOD 0 Volume Marker Pedestal Function Test.** Repeat the following procedure 3 times. A single failure is basis for rejection.

- Assemble the MK 88 MOD 0 Volume Marker using the GFE provided explosive tray billet.
- b. Place the MK 88 MOD 0 Volume Marker in a tank of fresh water with a 2 ½" diameter vertical pedestal at one end. The tank must be long enough to allow the MK 88 MOD 0 Volume Marker to float horizontally and with 1 foot of space on either end. The water must be a minimum of 3 feet deep.
- c. With the unit floating motionless and the volume interface pointing toward the pedestal end of the tank, squeeze the bite plate with one hand and remove the bite plate release lever pin with the other hand (Figure 12).
- d. Press the volume interface trigger plate against the pedestal until the bite plate assembly releases.
- e. Evaluation criteria: If the bite plate assembly does not release or the payload section drops, the volume interface is to be rejected.

# PRIME ITEM PRODUCT FABRICATION SPECIFICATION FOR COMPONENTS OF

MK 87 MOD 0 BOTTOM MARKER & MK 88 MOD 0 VOLUME MARKER

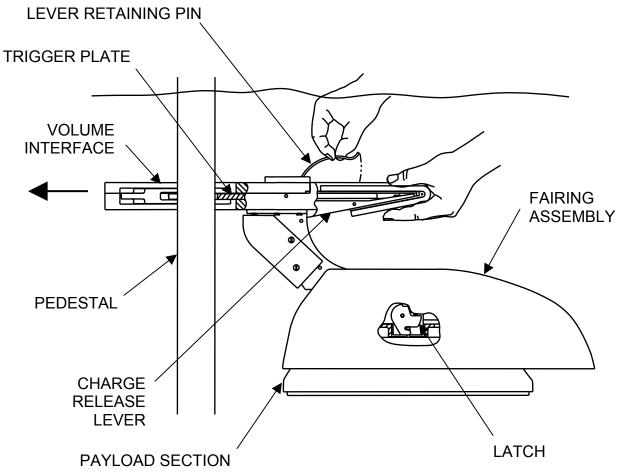


Figure 12. Position for MK 88 MOD 0 Volume Marker Pedestal Function Test

**4.2.6.6 MK 88 MOD 0 Volume Marker Premature Release Function Test.** Repeat the following procedure 3 times. A single failure is basis for rejection.

- a. Assemble the MK 88 MOD 0 Volume Marker using the GFE provided explosive tray billet.
- b. Place the MK 88 MOD 0 Volume Marker in a tank of fresh water. The tank must be long enough to allow the MK 88 MOD 0 Volume Marker to float horizontally and with 1 foot of space on either end. The water must be a minimum of 3 feet deep.
- c. With the unit floating motionless and the volume interface base plate parallel to the bottom of the tank, squeeze the bite plate with one hand and remove the bite plate release lever pin with the other hand (Figure 13).
- d. Open bite plate slowly, taking 1-2 seconds. The latch must actuate when charge release lever has reached a distance of 2.75" to 3.00" from the volume interface adapter (measured using the GFE block according to drawing 55910-0206116), allowing payload section to separate from fairing assembly.
- e. Evaluation criteria: If the latch assembly does not actuate and the payload section does not drop, the marker is to be rejected. The problem shall be identified, corrected, and retested.

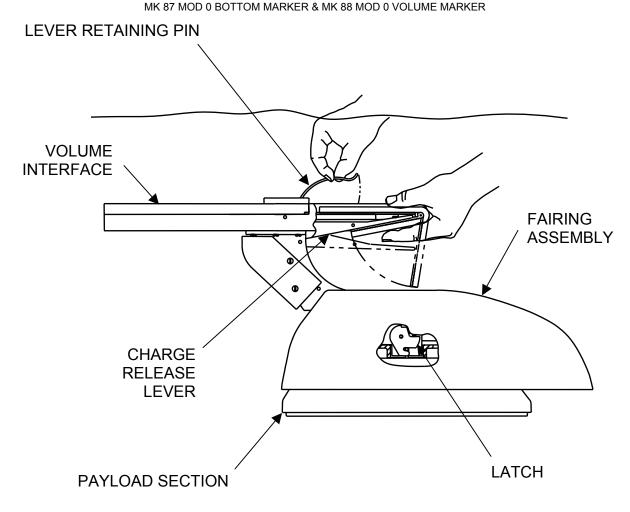


Figure 13. Position for MK 88 MOD 0 Volume Marker Premature Release Function Test

**4.2.7 Production Sampling Tests.** The following tests shall be done on a production lot basis. The lot size shall be eight (8) MK 33 MOD 0 Accessory Sets and forty-eight (48) bottom interfaces or twenty-four (24) volume interfaces. The entire lot shall have passed all inspections (see paragraph 4.2.4.1), the Fairing Assembly Leak Test (see paragraph 4.2.5) and all applicable production function tests (see paragraph 4.2.6). Five (5) MK 33 MOD 0 Accessory Sets and five (5) bottom or volume interfaces shall be chosen at random from the lot. A Government representative shall be present to select the units and witness the tests for the first lot unless that right is waived. All sampling tests at the contractor's plant may be monitored by a Government representative.

- MK 87 MOD 0 BOTTOM MARKER & MK 88 MOD 0 VOLUME MARKER
- **4.2.7.1 Weight Test.** The requirements of paragraph 3.4.2 shall be verified by demonstration. If any units fail any of these tests, production shall be halted and the Government representative notified.
- **4.2.7.2 Buoyancy Test.** The requirements of paragraph 3.4.3 shall be verified by demonstration with a GFE explosive tray billet installed. If any units fail any of these tests, production shall be halted and the Government representative notified.
- **4.2.7.3 Interchangeability Test.** Performance shall be demonstrated with all combinations of fairing assemblies, payload sections, explosive trays, and bottom or volume interfaces as specified in paragraph 3.4.4. Each fairing assembly, payload section, and bottom or volume interface shall pass the MK 33 MOD 0 Accessory Set and Bottom/Volume Interface Installation Tests (paragraphs 4.2.6.1 and 4.2.6.2) in every combination of the components. Any combination that does not meet the criteria of the test must be rejected and shall result in 100% testing of the lot.
- **4.2.7.4 Firing Devices Fit Test.** Performance shall be demonstrated as specified in paragraph 4.2.3.5.
- **4.2.8 Reuse of Components from Rejected Assemblies.** Major assemblies that have failed tests will have functional subassemblies and parts. Before any parts can be reused from the major assemblies, the part or subassembly at fault must be determined. The discrepancy must be recorded and kept with the faulty part or subassembly. It shall be the Government's option to examine defective parts and accompanying reports before they are discarded. The intent is to improve the manufacturing and quality control processes through failure analysis.
- **4.2.9 Drying.** Before packing units that have passed the production tests, the units must be thoroughly dried.

### 5 PREPARATION FOR DELIVERY

### 5.1 PACKAGING AND PACKING

5.1.1 MK 33 MOD 0 Accessory Set, Bottom Interface, and Volume Interface. First article MK 33 MOD 0 Accessory Sets and Bottom and Volume Interfaces shall be packaged and packed in a manner which will provide protection from damage during shipment from the contractor to the Government site where they are to be inspected, tested, and accepted. The type of container used shall conform to applicable carrier rules and regulations. The production MK 33 MOD 0 Accessory Sets shall be packaged and packed IAW drawing number 55910-0206182. Each MK 33 MOD 0 Accessory Set Shipping and Storage Container (drawing number 55910-0206182) holds eight (8) MK 33 MOD 0 Accessory Sets and one (1) container shall be required per production lot of eight (8) MK 33 MOD 0 Accessory Sets. The production bottom interfaces shall be packaged and packed IAW drawing number 55910-0206185 unless otherwise specified. Each Bottom and Volume Interface Shipping and Storage Container (drawing number 55910-0206185) holds forty-eight (48) bottom interfaces thus requiring one container per production lot of forty-eight (48) bottom interfaces. When packing the bottom interface, the nosecup lever shall be in the "down" (fired) position. Each Bottom and Volume Interface Shipping and Storage Container (drawing number 55910-0206185) holds twenty-four (24) volume interfaces thus requiring one container per production lot of twenty-four (24) volume interfaces. When packing the volume interface, the charge

PRIME ITEM PRODUCT FABRICATION SPECIFICATION FOR COMPONENTS OF

28 March 2003

55910-0207717

MK 87 MOD 0 BOTTOM MARKER & MK 88 MOD 0 VOLUME MARKER

release lever should be in the "down" (dumped) position and the gates should be in the "open" position with the bite plate packed separately in the same cavity of each interface. All required inspection reports and tests reports must be submitted with, but not packed in, the units.

### 5.2 DELIVERY

Delivery will be as specified in the contract.

### **APPENDIX A.1 NUMERICAL LIST OF DRAWINGS**

DRAWING NUMBER	DRAWING TITLE	# of SHEETS	REV LTR
0103608	NOSECUP	2	K
0118733	LEVER RETAINING PIN	1	D
0118753	BALL CABLE FITTING	1	С
0118755	CABLE	1	E
0206115	MK 87 MOD 0 BOTTOM MARKER	1	-
0206116	MK 88 MOD 0 VOLUME MARKER	1	-
0206117	BOTTOM INTERFACE	2	-
0206118	VOLUME INTERFACE	2	-
0206119	MK 33 MOD 0 ACCESSORY SET	1	-
0206132	FAIRING ASSEMBLY	1	-
0206133	FAIRING	2	-
0206134	LATCH ASSEMBLY	1	-
0206135	LATCH HOUSING	2	-
0206136	LATCH, ROTARY	1	-
0206137	LEVER, ROD	1	-
0206138	ROD, RETENTION	1	-
0206140	HOUSING, PAYLOAD SECTION	3	-
0206144	EXPLOSIVE TRAY – MK 62	2	-
0206147	BASE PLATE ASSEMBLY	1	-
0206149	PIN	1	-
0206152	LEVER, NOSECUP	1	-
0206153	TIP, NOSECUP	1	-
0206154	LOCK, INTERFACE	1	-
0206155	PISTON	1	-
0206156	COVER, NOSECUP TIP	1	-
0206157	ADAPTER, BOTTOM INTERFACE	2	-
0206158	NOSECUP	1	-
0206160	PAD, SPACER	1	-
0206182	SHIPPING AND STORAGE CONTAINER – MK 33 MOD 0 ACCESSORY SET	1	-
0206183	DIVIDER, CONTAINER	1	-
0206184	FOAM, CONTAINER	1	-
0206185	SHIPPING AND STORAGE CONTAINER - BOTTOM & VOLUME INTERFACE	2	-
0206186	DIVIDER, CONTAINER	1	-
0206187	FRAME-VOLUME INTERFACE	4	-
0206188	ADAPTER ASSEMBLY-VOLUME INTERFACE	2	-
0206190	REFLECTOR ASSEMBLY	1	_
0206192	LEVER, BITE PLATE RELEASE	1	-
0206193	ADAPTER - VOLUME INTERFACE	2	-
0206194	LEVER, CHARGE RELEASE	1	-
0206195	COVER, CABLE	1	-
0206196	COVER, FRAME	2	-
0206197	INSERT, BASE PLATE	1	-
0206198	GATE- VOLUME INTERFACE	2	-
0206199	TRIGGER PLATE – VOLUME INTERFACE	1	-
0206200	COVER, BITE PLATE RELEASE LEVER	1	-
0206201	BITE PLATE ASSEMBLY	1	-

### PRIME ITEM PRODUCT FABRICATION SPECIFICATION FOR COMPONENTS OF MK 87 MOD 0 BOTTOM MARKER & MK 88 MOD 0 VOLUME MARKER

DRAWING	DRAWING TITLE	# of SHEETS	REV
NUMBER			LTR
0206202	HINGE, UPPER - BITE PLATE	1	-
0206203	HINGE, LOWER - BITE PLATE	1	-
0206204	PAD, BITE PLATE	1	-
0206206	REFLECTOR	1	-
0206208	SCREW, CABLE ADJUSTMENT	1	-
0207012	PAYLOAD SECTION	1	-
0207019	SPRING, ROTARY LATCH	1	-
0207020	SPRING, RETENTION ROD	1	-
0207021	SPRING, PISTON	1	-
0207022	SPRING, CHARGE RELEASE LEVER	1	-
0207023	SPRING, TRIGGER PLATE	1	-
0207024	SPRING, BITE PLATE RELEASE LEVER	1	-
0207034	DETENT, GATE	1	-
0207035	SPRING, GATE DETENT	1	-
0207707	BASE PLATE	2	-
0207709	EXPLOSIVE TRAY – MK 58 MOD 0	2	-
0207757	LABEL, SHIPPING & STORAGE CONTAINER	3	-

### **APPENDIX A.2 ALPHABETICAL LIST OF DRAWINGS**

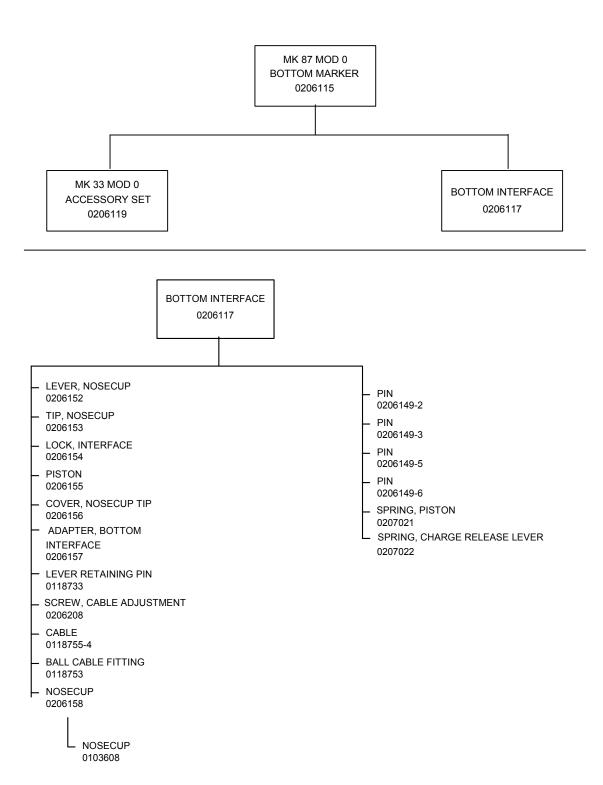
DRAWING NUMBER	DRAWING TITLE	# of SHEETS	REV LTR
0206193	ADAPTER - VOLUME INTERFACE	2	-
0206188	ADAPTER ASSEMBLY-VOLUME INTERFACE	2	-
0206157	ADAPTER, BOTTOM INTERFACE	2	-
0118753	BALL CABLE FITTING	1	С
0207707	BASE PLATE	2	-
0206147	BASE PLATE ASSEMBLY	1	-
0206201	BITE PLATE ASSEMBLY	1	-
0206117	BOTTOM INTERFACE	2	-
0118755	CABLE	1	Е
0206200	COVER, BITE PLATE RELEASE LEVER	1	-
0206195	COVER, CABLE	1	-
0206196	COVER, FRAME	2	-
0206156	COVER, NOSECUP TIP	1	-
0207034	DETENT, GATE	1	-
0206183	DIVIDER, CONTAINER	1	-
0206186	DIVIDER, CONTAINER	1	-
0207709	EXPLOSIVE TRAY – MK 58 MOD 0	2	-
0206144	EXPLOSIVE TRAY – MK 62	2	-
0206133	FAIRING	2	-
0206132	FAIRING ASSEMBLY	1	-
0206184	FOAM, CONTAINER	1	-
0206187	FRAME-VOLUME INTERFACE	4	-
0206198	GATE- VOLUME INTERFACE	2	-
0206203	HINGE, LOWER - BITE PLATE	1	-
0206202	HINGE, UPPER - BITE PLATE	1	-
0206140	HOUSING, PAYLOAD SECTION	3	-
0206197	INSERT, BASE PLATE	1	-
0207757	LABEL, SHIPPING & STORAGE CONTAINER	3	-
0206134	LATCH ASSEMBLY	1	-
0206135	LATCH HOUSING	2	-
0206136	LATCH, ROTARY	1	-
0118733	LEVER RETAINING PIN	1	D
0206192	LEVER, BITE PLATE RELEASE	1	-
0206194	LEVER, CHARGE RELEASE	1	-
0206152	LEVER, NOSECUP	1	-
0206137	LEVER, ROD	1	-
0206154	LOCK, INTERFACE	1	-
0206119	MK 33 MOD 0 ACCESSORY SET	1	-
0206115	MK 87 MOD 0 BOTTOM MARKER	1	-
0206116	MK 88 MOD 0 VOLUME MARKER	1	-
0103608	NOSECUP	2	K
0206158	NOSECUP	1	-
0206204	PAD, BITE PLATE	1	-
0206160	PAD, SPACER	1	-
0207012	PAYLOAD SECTION	1	-
0206149	PIN	1	-
0206155	PISTON	1	-
0206206	REFLECTOR	1	-
0206190	REFLECTOR ASSEMBLY	1	-

### 28 March 2003

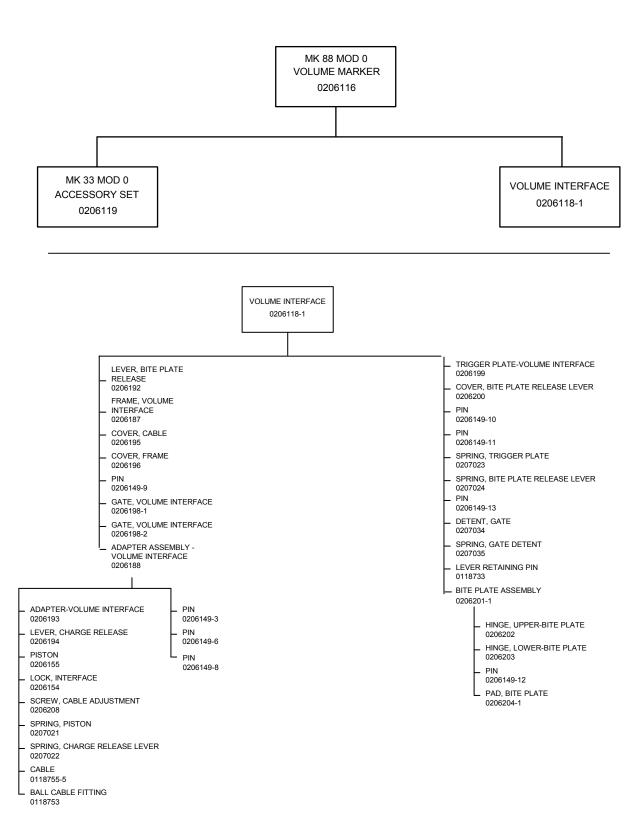
### PRIME ITEM PRODUCT FABRICATION SPECIFICATION FOR COMPONENTS OF MK 87 MOD 0 BOTTOM MARKER & MK 88 MOD 0 VOLUME MARKER

DRAWING NUMBER	DRAWING TITLE	# of SHEETS	REV LTR
0206138	ROD, RETENTION	1	-
0206208	SCREW, CABLE ADJUSTMENT	1	-
0206185	SHIPPING AND STORAGE CONTAINER - BOTTOM & VOLUME INTERFACE	2	-
0206182	SHIPPING AND STORAGE CONTAINER – MK 33 MOD 0 ACCESSORY SET	1	-
0207024	SPRING, BITE PLATE RELEASE LEVER	1	-
0207022	SPRING, CHARGE RELEASE LEVER	1	-
0207035	SPRING, GATE DETENT	1	-
0207021	SPRING, PISTON	1	-
0207020	SPRING, RETENTION ROD	1	-
0207019	SPRING, ROTARY LATCH	1	-
0207023	SPRING, TRIGGER PLATE	1	-
0206153	TIP, NOSECUP	1	-
0206199	TRIGGER PLATE – VOLUME INTERFACE	1	-
0206118	VOLUME INTERFACE	2	_

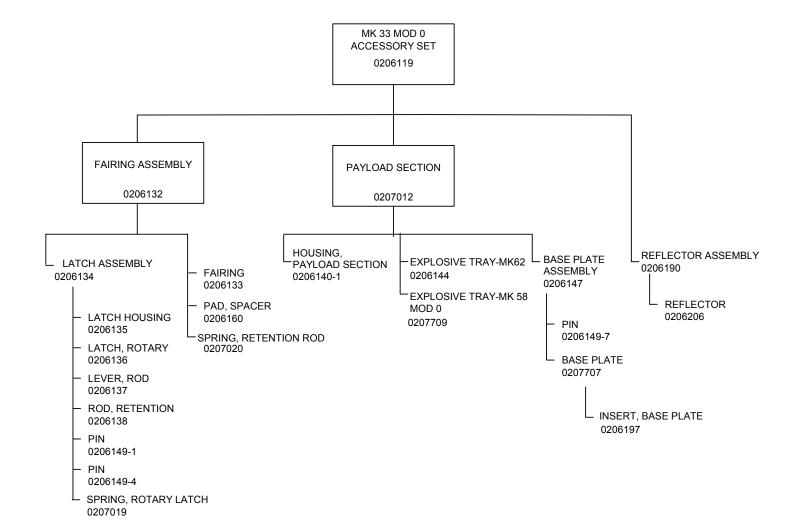
### **APPENDIX A.3 ORGANIZATION OF COMPONENTS**



# PRIME ITEM PRODUCT FABRICATION SPECIFICATION FOR COMPONENTS OF MK 87 MOD 0 BOTTOM MARKER & MK 88 MOD 0 VOLUME MARKER



# PRIME ITEM PRODUCT FABRICATION SPECIFICATION FOR COMPONENTS OF MK 87 MOD 0 BOTTOM MARKER & MK 88 MOD 0 VOLUME MARKER



# APPENDIX A.4 STANDARDS AND SPECIFICATIONS REFERENCED IN THE DRAWING PACKAGE

REFERENCE	TITLE	REV	DATE
A-A-1936	Adhesive, Contact, Neoprene Rubber	Α	Feb 00
A-A-208	Ink, Marking, Stencil, Opaque (Porous And Non-Porous Surfaces)		
ASTM B 21	Standard Specification for Naval Brass Rod, Bar, and Shapes	М	Apr 01
ASTM B 36	Standard Specification for Brass Plate, Sheet, Strip, and Rolled Bar	М	Apr 01
ASTM D 1525	Standard Test Method for Vicat Softening Temperature of Plastics		Mar 00
ASTM D 2765	Standard Test Methods for Determination of Gel Content and Swell Ratio of Crosslinked Ethylene Plastics		Jun 01
ASTM D 638	Standard Test Method for Tensile Properties of Plastics		Apr 02
ASTM D 6576	Standard Specification for Flexible Cellular Rubber Chemically Blown		Jul 00
ASTM D 790	Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials		Apr 02
ASTM D4101	Standard Specification for Polypropylene Injection and Extrusion Materials		Mar 02
ASTM D4181	Standard Classification for Acetal (POM) Molding and Extrusion Materials		Jul 00
ASTM D4801	Standard Specification for Polyethylene Sheeting in Thickness of 0.25 mm (0.010 in.) and Greater E(2001) R(2001)		Nov 95
ASTM F 736	Standard Test Method for Impact Resistance of Monolithic Polycarbonate Sheet by Means of a Falling Weight R(2001)		Aug 95
FED-STD-595	Colors Used In Government Procurement	В	Jan 94
FF-S-2738	Seals, Antipilferage	Α	Mar 99
L-P-410	Plastic, Polyamide (Nylon), Rigid: Rods, Tubes, Flats, Molded and Cast Parts		
MIL-A-8625	Anodic Coatings for Aluminum And Aluminum Alloys	F	Sep 93
MIL-C-5040	Cord, Fibrous, Nylon	Н	Oct 97
MIL-STD-130	Identification Marking of U.S. Military Property	K	Jan 00
MIL-W-18375	Wire Rope, Flexible, Corrosion-Resisting, Nonmagnetic, for Aircraft Control	G	Nov 01
QQ-A-250/11	Aluminum Alloy 6061, Plate and Sheet UNS A96061		Aug 97
SAE-AMS 5699	Nickel Alloy, Corrosion and Heat Resistant, Wire 72Ni - 15.5Cr - 0.95Cb - 2.5Ti - 0.70Al- 7.0Fe Spring Temper, Precipitation Hardenable UNS N07750	G	Jun 03
SAE-AMS-QQ-P-35	Passivation Treatments for Corrosion-Resistant Steel		May 98
SAE-AMS-QQ-S-763	Steel Bars, Wire, Shapes, and Forgings; Corrosion Resistant		Jul 98

### **APPENDIX A.5 ASSOCIATED EQUIPMENT LIST**

DWG. NO.	ITEM NAME
0206182	SHIPPING & STORAGE CONTAINER- MK 33 MOD 0 ACCESSORY SET
0206185	SHIPPING & STORAGE CONTAINER- BOTTOM & VOLUME INTERFACE

### **APPENDIX A.6 BLANK FORMS**

		LA	ATCH ROI	DINSPEC	TION	REPORT		
PART NAME: HOUSING, PAYLOAD SECTION				ON SERIAL NO:				
DWG NO: 0206140  Q/A INSPECTOR:  DATE (YY/MM/DD):				REV LETTER: INSPECTION CATEGORY				
						_ <b>X</b> _		
COMMENTS:			MANDATORY PRODUCTION X  REQUESTED PRODUCTION			_X_		
SHT	ZONE	PRESCRIBED DIMENSION	ACTUAL DIMENSION	OUT OF TOLERANCE			REJECT	
2	В6	.188						
REM	ARKS	<b>3</b> :						

# PRIME ITEM PRODUCT FABRICATION SPECIFICATION FOR COMPONENTS OF MK 87 MOD 0 BOTTOM MARKER & MK 88 MOD 0 VOLUME MARKER

F	AIRING ASSEMBLY L	EAK TEST REPORT		
PART NAME:	FAIRING ASSEMBLY	SERIAL NO:		
DWG NO:	0206132	REV LETTER:		
Q/A INSPECTOR:  DATE (YY/MM/DD):  COMMENTS:		INSPECTION CATEGORY FIRST ARTICLE		
		MANDATORY PRODUCTION	X	
		REQUESTED PRODUCTION		
DRY WEIGHT:		OZ		
DEPTH SUBMER	RGED:	FT		
START TIME:				
STOP TIME:				
WET WEIGHT:		OZ		
WEIGHT DIFFER (Wet Weight – D		OZ		
PASS		FAIL		
5	5910-0206132. ANY WEIGI	CSCRIBED IN NOTE 2 OF DRAWIN HT GAIN (WEIGHT DIFFERENCE) RITERION FOR REJECTION.	G	